

## TENT COOPERATION TREATY

## PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PC03018-LG	<b>FOR FURTHER ACTION</b> see Form PCT/ISA/220 as well as, where applicable, item 5 below.	
International application No. <b>PCT/KR2003/002470</b>	International filing date ( <i>day/month/year</i> ) 17 NOVEMBER 2003 (17.11.2003)	(Earliest) Priority Date ( <i>day/month/year</i> ) 16 JANUARY 2003 (16.01.2003)
Applicant  LG LIFE SCIENCES LTD. et al		

This International search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 3 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. **Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box No. II)

3. ☐ **Unity of invention is lacking** (See Box No. III)

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

b. ☒ none of the figure is to be published with the abstract.

**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 C07C 49/173, C07C 51/353, C07C 59/90, C07C 59/115**

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

IPC7 C07C 49, C07C 51, C07C 59, C07D 319, C12P 7, C12R 1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
Korean Patents and applications for inventions since 1975Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
STN ONLINE (REG, CA, CASREACT)**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5594153 A (E. R. Squibb & Sons, Inc.) 14 Jan 1997 See column 1, line 51- column 2, line 19; column 3, line 26 - column 4, line 20; example 4	1 - 16
A	SCHEFFLER et al. 'Preparation and stereoselective hydrogenation of chiral (4-hydroxytetrafuranylidene)carboxylates: a new formal entry to functional anti- and syn-3,5-dihydroxy esters' Tetrahedron Letters (2002), 43(15), 2679-2682 See page 2679 (Scheme 1)	1 - 16
A	US 6340767 B (Kaneka Corporation) 22 Jan 2002 See abstract; column 2, line 19 - column 5, line 40	1 - 16
A	EP 1024139 A (Kaneka Corporation) 02 Oct 2000 See abstract; page 4, line 32 - page 5, line 13; page 9, line 14 - page 10, line 37; example 1 - 3	1 - 16
A	US 6399339 B (Forschungszentrum Julich GmbH) 04 Jun 2002 See column 5, line 38 - column 6, line 49; example 1	1 - 16

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

06 FEBRUARY 2004 (06.02.2004)

Date of mailing of the international search report

09 FEBRUARY 2004 (09.02.2004)

Name and mailing address of the ISA/KR



Korean Intellectual Property Office  
920 Dunsan-dong, Seo-gu, Daejeon 302-701,  
Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

SHIN, Gun Il

Telephone No. 82-42-481-5543



**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.  
PCT/KR2003/002470

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US5594153A	14.01.1997	NONE	
US6340767B	22.01.2002	W02000075099A CA2339357A AU2000051043A EP1104750A	14.12.2000 14.12.2000 28.12.2000 06.06.2001
EP1024139A	02.08.2000	CA2305564A1 CN1274356T HU0101122A2 N020001703A US6472544B1 W00008011A1	17.02.2000 22.11.2000 28.08.2001 03.04.2000 29.10.2002 17.02.2000
US6399339B	04.06.2002	DE19857302A1 EP1141373A1 W00036134A1	29.06.2000 10.10.2001 22.06.2000
----- End of line -----			